

SOLUTIONS

Complete each of the questions on loose leaf.

1) Divide

a) $-72 \div (-6)$ b) $75 \div 25$ c) $\frac{-16}{16}$ d) $-380 \div 38$ e) $\frac{0}{-10}$

12	3	-1	-10	0
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f) $\frac{-50}{-10}$ g) $45 \div (-15)$ h) $\frac{-50}{-2}$ i) $\frac{125}{-25}$

5	-3	25	-5
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2) Find the Quotient

a) $\frac{(-4)(-5)}{-2}$ b) $\frac{(-11)(-9)}{3}$ c) $\frac{(-6)(9)}{-3}$ d) $\frac{(12)(-10)}{(-5)(-4)}$

$\frac{20}{-2} = -10$	$\frac{99}{3} = 33$	$\frac{-54}{-3} = 18$	$\frac{-120}{20} = -6$
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e) $\frac{(8)(10)}{(-2)(-5)}$ f) $\frac{(-27)(6)}{(-18)(3)}$ g) $\frac{-7(-8)(-2)}{4(2)(-1)}$ h) $\frac{6(-6)(-3)}{-2(-9)}$

$\frac{80}{-10} = -8$	$\frac{-162}{-54} = 3$	$\frac{-112}{-8} = 14$	$\frac{108}{18} = 6$
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3) What is true about the integers if their quotient gives this result?

- a) Positive b) negative c) one d) zero

a) Both are positive or both are negative
b) One is positive and one is negative
c) Numerator and denominator have the same positive or negative numbers
d) Numerator is zero.

- 4) The high temperature for a week in Fredericton in December were -4°C , 2°C , 4°C , -6°C , -10°C , -12°C , and -16°C . What was the average high temperatures?

$$\begin{aligned} (-4) + (2) + (4) + (-6) + (-10) + (-12) + (-16) &= -42 \\ \frac{-42}{7} &= -6 \end{aligned}$$

- 5) The product of two integers is 899. If one integer is -31, what is the other?

$$\frac{899}{-31} = -29$$

- 6) If a submarine descends (goes down) at the rate of 50 m/min, how long will it take to descend from sea level to -1350 m?

$$\frac{-1350}{-50} = 27 \text{ minutes}$$

- 7) Air temperature decreases about 6°C for every 1 km increase in altitude. The air temperature at the start of a balloon ride was 8°C and at the highest point of the ride was -10°C . What was the greatest height reached?

$$\begin{aligned} 8 - (-10) &= 18 \\ \frac{18}{6} &= 3 \text{ km} \end{aligned}$$

- 8) Evaluate when $a = 6$, $b = -4$, and $c = -3$

a) $\frac{ab}{c}$

b) $\frac{-2bc}{a}$

c) $\frac{a^2c}{b}$

$\frac{(6)(-4)}{(-3)} = \frac{-24}{-3} = 8$	$\frac{-2(-4)(-3)}{6} = \frac{-24}{6} = -4$	$\frac{(6)^2(-3)}{-4} = \frac{36(-3)}{-4} = \frac{-108}{-4} = 27$
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